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Response to the letter about the article “Prognosis of severe congenital heart diseases: Do we overestimate the impact of prenatal diagnosis?”

Réponse à la lettre concernant l'article « Pronostic des cardiopathies congénitales sévères : surestimons-nous l'impact du diagnostic prénatal ? »

Keywords Mortality; Screening; Congenital heart disease; Morbidity; Neurodevelopment

Mots clés Mortalité ; Dépistage ; Cardiopathie congénitale ; Morbidité ; Neuro-développement

We are grateful for the opportunity to respond to the letter by Dr Seguela and colleagues. We appreciate their interest in our study and acknowledge that we expected such a position paper to raise questions among some experts in prenatal diagnosis.

As stated in our paper, no ideal study design has been able to demonstrate, with a relevant level of evidence, a positive effect of prenatal diagnosis on prognosis in the overall spectrum of congenital heart diseases (CHD) [1,2]. Yet, from a public-health perspective, many countries, including France, have actively promoted mass prenatal ultrasound screening since the 1980s, consequently leading to a high level of prenatal diagnosis accuracy, with up to 95% screening rates for some CHD [2]. However, not all countries have followed this policy, arguing that such a time-consuming and expensive healthcare activity, with possibly damaging psychological effects on parents, medicolegal issues for sonographers [3] and increased amniocentesis procedures [4], needed to be counterbalanced by a significantly better prognosis. In the United States, prenatal diagnosis of transposition of the great arteries remains limited to less than one in two newborns [5], despite a supposedly better outcome when neonatal care is anticipated [6], but their survival rates after surgery are excellent [7] and neurodevelopmental issues are taken into consideration [8,9].

Nevertheless, we fully agree with Segela et al. that the most appropriate outcome currently is no longer mortality, considering the high survival rates in paediatric cardiology [2,7]. Furthermore, medical termination of pregnancy in

the most complex CHD will long remain the major bias of prognostic studies on prenatal screening [10].

In the modern era, healthcare systems are increasingly constrained by resource allocation, and our community needs to regularly question the efficacy and consequences of each policy. For instance, we may regret that the mass prenatal ultrasound screening actively undertaken in France over the past two decades has reached such a high level of accuracy, without being associated with a similar and systematic screening of neurodevelopmental disorders in children with CHD [8].

Finally, we may probably all agree that prenatal diagnosis of CHD should be more systematically integrated into multicentre prospective clinical research trials, using modern morbidity endpoints, such as patient-related outcomes [11,12], neurodevelopmental status [9,13], and exercise capacity [14,15].

Disclosure of interest

The authors declare that they have no competing interest.

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